

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

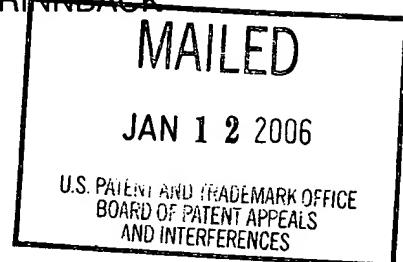
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

**Ex parte HANS CARLSSON AND LENNART RINNBACK**

Appeal No. 2005-2719  
Application No. 09/887,630

ON BRIEF



Before JERRY SMITH, RUGGIERO and NAPPI, **Administrative Patent Judges**.

NAPPI, **Administrative Patent Judge**.

**DECISION ON APPEAL**

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 1 through 20. For the reasons stated *infra* we reverse the examiner's rejection of these claims.

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### **The Invention**

The invention relates to location services for use with General Packet Radio Service (GPRS). See page 1 of appellants' specification. Location messages are transmitted between location servers and mobile stations in a GPRS system via a base station and a serving GPRS support node. See page 3 of appellants' specification and figure 1.

Claim 1 is representative of the invention and is reproduced below:

1. A method of transmitting a location service message between a location server and a mobile station in a packet data network, said method comprising:

transmitting said location service message from said location server to a base station subsystem;

forwarding said location message from said base station subsystem to a serving GPRS support node; and

forwarding said location service message from said serving GPRS support node to said mobile station.

### **References**

The references relied upon by the examiner are:

Aarnio	6,522,889	February 18, 2003 (filed December 23, 1999)
Haeggstrom	6,167,040	December 26, 2000

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### **Rejections at Issue**

Claims 1 through 20 stand rejected under 35 U.S.C. § 103 as being unpatentable over Aarnio in view of Haeggstrom. The examiner's rejection is set forth on pages 4 through 7 of the answer.

### **Opinion**

We have carefully considered the subject matter on appeal, the rejection advanced by the examiner and the evidence of obviousness relied upon by the examiner as support for the rejection. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellants' arguments set forth in the briefs, along with the examiner's rationale in support of the rejection and arguments in rebuttal set forth in the examiner's answer. With full consideration being given to the subject matter on appeal, the examiner's rejection and the arguments of appellants and examiner, for the reasons stated *infra*, we will not sustain the examiner's rejection of claims 1 through 20.

Appellants argue on pages 6 through 9 of the brief, that there is no motivation to combine the references as asserted by the examiner. On pages 9 through 15 of the brief, appellants argue that even if the references were properly combined, Haeggstrom does not teach a location server as required by the claims. Finally, on pages 15 through 19 of the brief, appellants argue, with respect to claim 1, the combination of the references do not teach the method steps in the order claimed. Appellants argue, on pages 17 and 18 of the brief:

Claim 1 thus inherently imposes a specific order of execution on its recited method steps: a message is first transmitted from a location server to a BSS [Base Station Subsystem]. It is then forwarded from the BSS to a serving GPRS support node. Finally, the message is forwarded from the serving GPRS support node to the mobile station. No other ordering of the method steps is logically possible, as one of ordinary skill in the art would readily recognize.

The combination of Aarnio and Haeggstrom does not disclose this order of message transmission and forwarding – that is, it does not disclose the network routing of a message from a location server to a mobile station recited in claim 1. Aarnio discloses transmitting messages between a location server and a mobile station precisely in the dotted-line route of Figure A above [figure A of appellants' arguments omitted] –from the location server directly to/through the GPRS network, which then forwards them to a BSS for transmission to the mobile station. Aarnio, Figure 1 . In one embodiment, Aarnio interposes the Internet between the GPRS and the location server. *Id.* However, this does not alter the message routing within the wireless network. Nowhere does Aarnio teach or suggest sending location service messages from a location server to a BSS, from the BSS to a serving GPRS support node, and from the serving GPRS support node to the mobile station, as recited in claim 1.

Haeggstrom does not cure the failure of Aarnio to teach the method (and hence the network message routing) of claim 1. Haeggstrom discloses routing speech data packets along the same path as Aarnio: from a mobile station through a base transceiver station and base station controller (*i.e.* a BSS), to a serving GPRS support node (SGSN) and across the Internet to terminal equipment (TE).

In response to appellants' arguments, the examiner states that the combination of Aarnio and Haeggstrom teach the claimed method steps in order. The examiner reasons, on page 14 of the answer, that Aarnio teaches transmitting a location service message from a location server to a GPRS network, which inherently includes a base station and GPRS support node, and then to the mobile station. Further, the examiner asserts, on pages 14 and 15 of the answer, that Haeggstrom teaches a serving GPRS node coupled to a location server “where in the location message must first be forwarded to the base station subsystem from the location server (e.g. via the only

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connection provided from the HLR to MSC/VLR to BSC, see FIG. 2) and then forwarded to the serving GPRS support node from the base station subsystem (e.g., via the only connection from BSC to SGSN, see FIG. 2) (e.g., see col. 4, line 6-col. 5 line 10)."

We disagree with the examiner's rationale. Initially we note that appellants' argument that Haeggstrom does not teach the claimed location server is not convincing. The examiner asserts that Aarnio teaches the location server, and it appears that Aarnio's location server meets the definition of a location server asserted by appellants on pages 9 through 15 of the brief. Nonetheless, we concur with appellants' argument that claim 1 inherently imposes a specific order and that the combination of the references does not teach the steps in order. Specifically, we find that claim 1 requires a location service message be transmitted from a location server to a base station, from the base station to a serving GPRS support node and from the GPRS support node to the mobile station. We find, as appellants admit, that Aarnio teaches data transmission from the location server to the base station and the base station to the mobile station. We concur with the examiner and appellants, that Aarnio does not teach the transmission is forwarded from the base station to the serving GPRS, which is then forwarded to the mobile station (appellants' specification identifies that the transmission is forwarded from the GPRS to the mobile station through the base station see figure 1). Contrary, to the examiner's assertions, we do not find that Haeggstrom teaches a message must first be forwarded to the base station subsystem from the location server and then forwarded to the serving GPRS support node from the base station subsystem

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from the location server and then forwarded to the serving GPRS support node from the base station subsystem before being forwarded to the mobile station. The examiner considers Haeggstrom's Home Location Registry (HLR) to be a location server. Further, it appears that the examiner has interpreted Haeggstrom's figure 2 and the statements in column 5 which discuss a HLR to conclude that communication between the HLR and the serving GPRS must go through the base station. While we agree with the examiner that Figure 2 of Haeggstrom shows a HLR with a communication path to the base station that does not include the serving GSN. Further, we concur with the examiner that Haeggstrom, in column 5, lines 7 through 10, identifies that the GPRS network can make user of a HLR of the PLMN network. However, we find no teaching of messages from HLR to the mobile unit, nor a teaching or suggestion that if such messages were to be sent that they would necessarily go through the serving GPRS node. Thus, we do not find that either of the references teaches or suggests that location messages go from the location server to the base station then from the base station to the serving GPRS node and then to the mobile unit. Accordingly, we will not sustain the examiner's rejection of claim 1 or claims 2 through 4, which ultimately depend upon claim 1.

We next consider the independent claim 5. On pages 19 and 20 of the brief appellants present arguments similar to those presented regarding claim 1. Appellants argue that claim 5 is the inverse of claim 1 and requires transmission from the mobile unit to the location server.

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We concur with appellants. Claim 5 contains limitations directed to transmitting a location service message from a mobile station to a serving GPRS node, from the serving GPRS node to a base station and from the base station to the location server. As stated *supra* we do not find that either of the references teach or suggest location messages go from the location server to the base station, then from the base station to the serving GPRS node and then to the mobile unit. Similarly, we do not find that the combination of the references teach the reverse signal path, i.e. from the mobile unit to the location server. Accordingly, we will not sustain the examiner's rejection of claim 5 or claims 6 through 8, which ultimately depend upon claim 5.

We next consider the independent claim 9. On pages 20 and 21 of the brief appellants present arguments similar to those presented regarding claim 1. Appellants argue on page 20 of the brief, "claim 9 recites the support node as *receiving* uplink location service messages from the mobile terminal (via the BSS) and *forwarding* the uplink location service messages to the BSS. This routing of location services messages from the mobile terminal to the support node, then to the BSS is not taught or suggested anywhere in the art of record."

We concur with appellants. Claim 9 contains limitations directed to a base station receiving location messages from a location server, a support node receiving location messages from a base station and forwarding them to the mobile station. As stated *supra* we do not find that either of the references teaches location messages go from the location server to the base station, then from the base station to the serving GPRS node and then to the mobile unit. Accordingly, we will not sustain the examiner's

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rejection of claim 9 or claims 10 through 12, which ultimately depend upon claim 9.

We next consider independent claims 13 and 17. Appellants state, on pages 21 and 22 of the brief, that claims 13 and 17 relate to transmitting messages from a location server and a location measuring unit. Appellants argue on page 21 of the brief “[t]he routing of a location service message between the location server and the LMU in claim 13 is directly analogous to the routing of the location service message between the location server and the mobile station of claim 1.” Appellants present similar arguments directed to claim 17.

We concur with the appellants. Claims 13 and 17 are method claims and contain the same steps discussed *supra* with respect to claims 1 and 5. Accordingly, we will not sustain the examiner's rejection of independent claims 13, 17 and dependent claims 14 through 16 and 18 through 20 for the reasons stated *supra* with respect to claims 1 and 5.

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In summary, we will not sustain the examiner's rejections of claims 1 through 20 under 35 U.S.C. § 103(a). The decision of the examiner is reversed.

**REVERSED**

Jerry Smith

JERRY SMITH  
Administrative Patent Judge

*José Baffino*  
DIRECTOR

JOSEPH F. RUGGIERO  
Administrative Patent Judge

ROBERT E. NAPPI  
Administrative Patent

## Administrative Patent Judge

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